



**Technical Service
BULLETIN**

September 20, 2007

Title:

**M.I.L. "ON" DTC P0171, P0441,
AND/OR P0455**

Models:

'05 – '07 Corolla & Matrix (1ZZ-FE)

**ENGINE
EG041-07**

TSB UPDATE NOTICE:

The information contained in this TSB supersedes TSB No. EG006-05.
TSB No. EG006-05 is now obsolete and should be discarded.

Introduction Some 2005 – 2007 model year Corolla and Matrix vehicles equipped with a 1ZZ-FE engine may exhibit a M.I.L. "ON" condition with one or more of the Diagnostic Trouble Codes (DTCs) P0171, P0441, or P0455 stored in the Engine Control Module or ECM (SAE term: Powertrain Control Module/PCM). Please use the following procedure to repair the vehicle.

Applicable Vehicles

- **2005 – 2007** model year **Corolla** and **Matrix (2WD)** vehicles equipped with the **1ZZ-FE engine** and produced **BEFORE** the Production Change Effective VINs shown below.

Production Change Information

MODEL	PLANT	PRODUCTION CHANGE EFFECTIVE VIN
Corolla	Takaoka	JTDBR3#E#70136806
	NUMMI	1NXBR3#E#7Z924121
	TMMC	2T1BR3#E#7C850014
Matrix		2T1KR3#E#7C682669

Warranty Information

OP CODE	DESCRIPTION	MODEL	TIME	OFF	T1	T2
EG7033	R & R Engine Control Computer (ECM)	Corolla	0.4	89661-0####	01	99
		Matrix	0.5			

Applicable Warranty*:

This repair is covered under the Toyota Federal Emissions Warranty. This warranty is in effect for 96 months or 80,000 miles, whichever occurs first, from the vehicle's in-service date.



* Warranty application is limited to correction of a problem based upon a customer's specific complaint.



Parts Information

MODEL	TRANS	PREVIOUS PART NUMBER			CURRENT PART NUMBER	PART NAME	QTY
		2005 MY	2006 MY	2007 MY			
Corolla	A/T	89661-02C0#	89661-02C9#	89661-02K10	89661-02K11	Computer, Engine Control (ECM/PCM)	1
		89661-02C1#	89661-02D0#	89661-02K20	89661-02K21		1
Matrix		89661-0112#	89661-02D4#	89661-02K30	89661-02K31		1
		89661-0113#	89661-02D5#	89661-02K40	89661-02K41		1
Corolla & Matrix	M/T	89661-0Z04#	89661-02D1#	89661-02K50	89661-02K51	1	

Required Tools & Equipment

REQUIRED EQUIPMENT	PART NUMBER	QTY	DRW**
TIS Techstream* NOTE: Software version 2.11.004 or later is required. 	TSUNT	1	N/A
Digital Battery System Analyzer* NOTE: • All components from this kit/set are required. 	00002-V8150-KIT	1	19

* Essential SSTs.

** Drawer number in SST Storage System.

NOTE:

- **Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.**
- **The Toyota Diagnostic Tester and CAN Interface Module may also be used to perform the service procedures listed in this bulletin.**

Inspection Procedure

M.I.L. "ON" DTC P0171, P0441, and/or P0455

Some 2005 – 2007 model year Corolla and Matrix vehicles will set a M.I.L. "ON" DTC P0171, P0441, and/or P0455 as a result of the Purge VSV being continuously grounded by the ECM (PCM) instead of the normal duty cycled ground.

1. Confirm normal operation of the Purge VSV.
 Refer to the Technical Information System (TIS):
 - 2005 model year Corolla or Matrix Repair Manual: *Engine/Hybrid System – Engine Control – "SFI System (1ZZ-FE): EVAP Inspection Procedure"*.
 - 2006 or 2007 model year Corolla or Matrix Repair Manual: *Engine/Hybrid System – Engine Control – "1ZZ-FE Engine Control System: SFI System: EVAP System"*.
2. If the Purge VSV operates correctly per the Repair Manual diagnostics, replace the ECM (PCM).
3. If the Purge VSV does NOT operate correctly, follow the diagnostic procedures in the Repair Manual to repair.

**Repair
Procedure**

1. Replace the ECM (PCM).

Refer to TIS:

- 2005 model year Corolla or Matrix Repair Manual: *Engine/Hybrid System – Engine Control – “ECM (1ZZ–FE/2ZZ–GE): Replacement”*.
- 2006 or 2007 model year Corolla or Matrix Repair Manual: *Engine/Hybrid System – Engine Control – “1ZZ–FE Engine Control System: ECM Removal”*.
- 2006 or 2007 model year Corolla or Matrix Repair Manual: *Engine/Hybrid System – Engine Control – “1ZZ–FE Engine Control System: ECM Installation”*.

2. Register the VIN into the replacement ECM (PCM).

Refer to the Technical Information System (TIS):

- 2005 model year Corolla or Matrix Repair Manual: *Engine/Hybrid System – Engine Control – “SFI System (1ZZ–FE/2ZZ–GE): Registration”*.
- 2006 or 2007 model year Corolla or Matrix Repair Manual: *Engine/Hybrid System – Engine Control – “1ZZ–FE Engine Control System: SFI System: Registration”*.

3. Confirm the repair.